

SEQUENCE LISTING

<110> Weiner, Howard L.
Maron, Ruth
Libby, Peter

<120> SUPPRESSION OF VASCULAR DISORDERS BY
MUCOSAL ADMINISTRATION OF HEAT SHOCK PROTEIN PEPTIDES

<130> B0801/7202 (AWS)

<150> US 60/189,855
<151> 2000-03-15

<160> 3

<170> FastSEQ for Windows Version 3.0

<210> 1
<211> 540
<212> PRT
<213> M. tuberculosis

<400> 1
Met Ala Lys Thr Ile Ala Tyr Asp Glu Glu Ala Arg Arg Gly Leu Glu
1 5 10 15
Arg Gly Leu Asn Ala Leu Ala Asp Ala Val Lys Val Thr Leu Gly Pro
20 25 30
Lys Gly Arg Asn Val Val Leu Glu Lys Lys Trp Gly Ala Pro Thr Ile
35 40 45
Thr Asn Asp Gly Val Ser Ile Ala Lys Glu Ile Glu Leu Glu Asp Pro
50 55 60
Tyr Glu Lys Ile Gly Ala Glu Leu Val Lys Glu Val Ala Lys Lys Thr
65 70 75 80
Asp Asp Val Ala Gly Asp Gly Thr Thr Ala Thr Val Leu Ala Gln
85 90 95
Ala Leu Val Arg Glu Gly Leu Arg Asn Val Ala Ala Gly Ala Asn Pro
100 105 110
Leu Gly Leu Lys Arg Gly Ile Glu Lys Ala Val Glu Lys Val Thr Glu
115 120 125
Thr Leu Leu Lys Gly Ala Lys Glu Val Glu Thr Lys Glu Gln Ile Ala
130 135 140
Ala Thr Ala Ala Ile Ser Ala Gly Asp Gln Ser Ile Gly Asp Leu Ile
145 150 155 160
Ala Glu Ala Met Asp Lys Val Gly Asn Glu Gly Val Ile Thr Val Glu
165 170 175
Glu Ser Asn Thr Phe Gly Leu Gln Leu Glu Leu Thr Glu Gly Met Arg
180 185 190
Phe Asp Lys Gly Tyr Ile Ser Gly Tyr Phe Val Thr Asp Pro Glu Arg
195 200 205
Gln Glu Ala Val Leu Glu Asp Pro Tyr Ile Leu Leu Val Ser Ser Lys
210 215 220
Val Ser Thr Val Lys Asp Leu Leu Pro Leu Leu Glu Lys Val Ile Gly
225 230 235 240
Ala Gly Lys Pro Leu Leu Ile Ile Ala Glu Asp Val Glu Gly Glu Ala
245 250 255
Leu Ser Thr Leu Val Val Asn Lys Ile Arg Gly Thr Phe Lys Ser Val
260 265 270

Ala Val Lys Ala Pro Gly Phe Gly Asp Arg Arg Lys Ala Met Leu Gln
 275 280 285
 Asp Met Ala Ile Leu Thr Gly Gly Gln Val Ile Ser Glu Glu Val Gly
 290 295 300
 Leu Thr Leu Glu Asn Ala Asp Leu Ser Leu Leu Gly Lys Ala Arg Lys
 305 310 315 320
 Val Val Val Thr Lys Asp Glu Thr Thr Ile Val Glu Gly Ala Gly Asp
 325 330 335
 Thr Asp Ala Ile Ala Gly Arg Val Ala Gln Ile Arg Gln Glu Ile Glu
 340 345 350
 Asn Ser Asp Ser Asp Tyr Asp Arg Glu Lys Leu Gln Glu Arg Leu Ala
 355 360 365
 Lys Leu Ala Gly Gly Val Ala Val Ile Lys Ala Gly Ala Ala Thr Glu
 370 375 380
 Val Glu Leu Lys Glu Arg Lys His Arg Ile Glu Asp Ala Val Arg Asn
 385 390 395 400
 Ala Lys Ala Ala Val Glu Glu Gly Ile Val Ala Gly Gly Val Thr
 405 410 415
 Leu Leu Gln Ala Ala Pro Thr Leu Asp Glu Leu Lys Leu Glu Gly Asp
 420 425 430
 Glu Ala Thr Gly Ala Asn Ile Val Lys Val Ala Leu Glu Ala Pro Leu
 435 440 445
 Lys Gln Ile Ala Phe Asn Ser Gly Leu Glu Pro Gly Val Val Ala Glu
 450 455 460
 Lys Val Arg Asn Leu Pro Ala Gly His Gly Leu Asn Ala Gln Thr Gly
 465 470 475 480
 Val Tyr Glu Asp Leu Leu Ala Ala Gly Val Ala Asp Pro Val Lys Val
 485 490 495
 Thr Arg Ser Ala Leu Gln Asn Ala Ala Ser Ile Ala Gly Leu Phe Leu
 500 505 510
 Thr Thr Glu Ala Val Val Ala Asp Lys Pro Glu Lys Glu Lys Ala Ser
 515 520 525
 Val Pro Gly Gly Asp Met Gly Gly Met Asp Phe
 530 535 540

<210> 2
 <211> 573
 <212> PRT
 <213> H. sapiens

<400> 2

Met Leu Arg Leu Pro Thr Val Phe Arg Gln Met Arg Pro Val Ser Arg
 1 5 10 15
 Val Leu Ala Pro His Leu Thr Arg Ala Tyr Ala Lys Asp Val Lys Phe
 20 25 30
 Gly Ala Asp Ala Arg Ala Leu Met Leu Gln Gly Val Asp Leu Leu Ala
 35 40 45
 Asp Ala Val Ala Val Thr Met Gly Pro Lys Gly Arg Thr Val Ile Ile
 50 55 60
 Glu Gln Ser Trp Gly Ser Pro Lys Val Thr Lys Asp Gly Val Thr Val
 65 70 75 80
 Ala Lys Ser Ile Asp Leu Lys Asp Lys Tyr Lys Asn Ile Gly Ala Lys
 85 90 95
 Leu Val Gln Asp Val Ala Asn Asn Thr Asn Glu Glu Ala Gly Asp Gly
 100 105 110
 Thr Thr Ala Thr Val Leu Ala Arg Ser Ile Ala Lys Glu Gly Phe
 115 120 125
 Glu Lys Ile Ser Lys Gly Ala Asn Pro Val Glu Ile Arg Arg Gly Val
 130 135 140
 Met Leu Ala Val Asp Ala Val Ile Ala Glu Leu Lys Lys Gln Ser Lys

145	150	155	160
Pro Val Thr Thr Pro Glu Glu Ile Ala Gln Val Ala Thr Ile Ser Ala			
165	170	175	
Asn Gly Asp Lys Glu Ile Gly Asn Ile Ile Ser Asp Ala Met Lys Lys			
180	185	190	
Val Gly Arg Lys Gly Val Ile Thr Val Lys Asp Gly Lys Thr Leu Asn			
195	200	205	
Asp Glu Leu Glu Ile Ile Glu Gly Met Lys Phe Asp Arg Gly Tyr Ile			
210	215	220	
Ser Pro Tyr Phe Ile Asn Thr Ser Lys Gly Gln Lys Cys Glu Phe Gln			
225	230	235	240
Asp Ala Tyr Val Leu Leu Ser Glu Lys Lys Ile Ser Ser Ile Gln Ser			
245	250	255	
Ile Val Pro Ala Leu Glu Ile Ala Asn Ala His Arg Lys Pro Leu Val			
260	265	270	
Ile Ile Ala Glu Asp Val Asp Gly Glu Ala Leu Ser Thr Leu Val Leu			
275	280	285	
Asn Arg Leu Lys Val Gly Leu Gln Val Val Ala Val Lys Ala Pro Gly			
290	295	300	
Phe Gly Asp Asn Arg Lys Asn Gln Leu Lys Asp Met Ala Ile Ala Thr			
305	310	315	320
Gly Gly Ala Val Phe Gly Glu Glu Gly Leu Thr Leu Asn Leu Glu Asp			
325	330	335	
Val Gln Pro His Asp Leu Gly Lys Val Gly Glu Val Ile Val Thr Lys			
340	345	350	
Asp Asp Ala Met Leu Leu Lys Gly Lys Gly Asp Lys Ala Gln Ile Glu			
355	360	365	
Lys Arg Ile Gln Glu Ile Ile Glu Gln Leu Asp Val Thr Thr Ser Glu			
370	375	380	
Tyr Glu Lys Glu Lys Leu Asn Glu Arg Leu Ala Lys Leu Ser Asp Gly			
385	390	395	400
Val Ala Val Leu Lys Val Gly Gly Thr Ser Asp Val Glu Val Asn Glu			
405	410	415	
Lys Lys Asp Arg Val Thr Asp Ala Leu Asn Ala Thr Arg Ala Ala Val			
420	425	430	
Glu Glu Gly Ile Val Leu Gly Gly Cys Ala Leu Leu Arg Cys Ile			
435	440	445	
Pro Ala Leu Asp Ser Leu Thr Pro Ala Asn Glu Asp Gln Lys Ile Gly			
450	455	460	
Ile Glu Ile Ile Lys Arg Thr Leu Lys Ile Pro Ala Met Thr Ile Ala			
465	470	475	480
Lys Asn Ala Gly Val Glu Gly Ser Leu Ile Val Glu Lys Ile Met Gln			
485	490	495	
Ser Ser Ser Glu Val Gly Tyr Asp Ala Met Ala Gly Asp Phe Val Asn			
500	505	510	
Met Val Glu Lys Gly Ile Ile Asp Pro Thr Lys Val Val Arg Thr Ala			
515	520	525	
Leu Leu Asp Ala Ala Gly Val Ala Ser Leu Leu Thr Thr Ala Glu Val			
530	535	540	
Val Val Thr Glu Ile Pro Lys Glu Glu Lys Asp Pro Gly Met Gly Ala			
545	550	555	560
Met Gly Gly Met Gly Gly Met Gly Gly Met Phe			
565	570		

<210> 3
 <211> 544
 <212> PRT
 <213> C. pneumoniae

<400> 3

F05720-2012000000

Met	Ala	Ala	Lys	Asn	Ile	Lys	Tyr	Asn	Glu	Glu	Ala	Arg	Lys	Lys	Ile
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His	Lys	Gly	Val	Lys	Thr	Leu	Ala	Glu	Ala	Val	Lys	Val	Thr	Leu	Gly
					20				25				30		
Pro	Lys	Gly	Arg	His	Val	Val	Ile	Asp	Lys	Ser	Phe	Gly	Ser	Pro	Gln
					35				40				45		
Val	Thr	Lys	Asp	Gly	Val	Thr	Val	Ala	Lys	Glu	Ile	Glu	Leu	Glu	Asp
					50				55				60		
Lys	His	Glu	Asn	Met	Gly	Ala	Gln	Met	Val	Lys	Glu	Val	Ala	Ser	Lys
					65				70				75		80
Thr	Ala	Asp	Lys	Ala	Gly	Asp	Gly	Thr	Thr	Ala	Thr	Val	Leu	Ala	
					85				90				95		
Glu	Ala	Ile	Tyr	Ser	Glu	Gly	Leu	Arg	Asn	Val	Thr	Ala	Gly	Ala	Asn
					100				105				110		
Pro	Met	Asp	Leu	Lys	Arg	Gly	Ile	Asp	Lys	Ala	Val	Lys	Val	Val	Val
					115				120				125		
Asp	Glu	Leu	Lys	Lys	Ile	Ser	Lys	Pro	Val	Gln	His	His	Lys	Glu	Ile
					130				135				140		
Ala	Gln	Val	Ala	Thr	Ile	Ser	Ala	Asn	Asn	Asp	Ser	Glu	Ile	Gly	Asn
					145				150				155		160
Leu	Ile	Ala	Glu	Ala	Met	Glu	Lys	Val	Gly	Lys	Asn	Gly	Ser	Ile	Thr
					165				170				175		
Val	Glu	Glu	Ala	Lys	Gly	Phe	Glu	Thr	Val	Leu	Asp	Val	Val	Glu	Gly
					180				185				190		
Met	Asn	Phe	Asn	Arg	Gly	Tyr	Leu	Ser	Ser	Tyr	Phe	Ser	Thr	Asn	Pro
					195				200				205		
Glu	Thr	Gln	Glu	Cys	Val	Leu	Glu	Asp	Ala	Leu	Ile	Leu	Ile	Tyr	Asp
					210				215				220		
Lys	Lys	Ile	Ser	Gly	Ile	Lys	Asp	Phe	Leu	Pro	Val	Leu	Gln	Gln	Val
					225				230				235		240
Ala	Glu	Ser	Gly	Arg	Pro	Leu	Leu	Ile	Ile	Ala	Glu	Glu	Ile	Gly	
					245				250				255		
Glu	Ala	Leu	Ala	Thr	Leu	Val	Val	Asn	Arg	Leu	Arg	Ala	Gly	Phe	Arg
					260				265				270		
Val	Cys	Ala	Val	Lys	Ala	Pro	Gly	Phe	Gly	Asp	Arg	Arg	Lys	Ala	Met
					275				280				285		
Leu	Glu	Asp	Ile	Ala	Ile	Leu	Thr	Gly	Gly	Gln	Leu	Val	Ser	Glu	Glu
					290				295				300		
Leu	Gly	Met	Lys	Leu	Glu	Asn	Thr	Thr	Leu	Ala	Met	Leu	Gly	Lys	Ala
					305				310				315		320
Lys	Lys	Val	Ile	Val	Lys	Glu	Asp	Thr	Thr	Ile	Val	Glu	Gly	Leu	
					325				330				335		
Gly	Asn	Lys	Pro	Asp	Ile	Gln	Ala	Arg	Cys	Asp	Asn	Ile	Lys	Gln	
					340				345				350		
Ile	Glu	Asp	Ser	Thr	Ser	Asp	Tyr	Asp	Lys	Glu	Lys	Leu	Gln	Glu	Arg
					355				360				365		
Leu	Ala	Lys	Leu	Ser	Gly	Gly	Val	Ala	Val	Ile	Arg	Val	Gly	Ala	Ala
					370				375				380		
Thr	Glu	Ile	Glu	Met	Lys	Glu	Lys	Asp	Arg	Val	Asp	Asp	Ala	Gln	
					385				390				395		400
His	Ala	Thr	Ile	Ala	Ala	Val	Glu	Glu	Ile	Leu	Pro	Gly	Gly		
					405				410				415		
Thr	Ala	Leu	Val	Arg	Cys	Ile	Pro	Thr	Leu	Glu	Ala	Phe	Leu	Pro	Met
					420				425				430		
Leu	Ala	Asn	Glu	Asp	Glu	Ala	Ile	Gly	Thr	Arg	Ile	Ile	Leu	Lys	Ala
					435				440				445		
Leu	Thr	Ala	Pro	Leu	Lys	Gln	Ile	Ala	Ser	Asn	Ala	Gly	Lys	Glu	Gly
					450				455				460		
Ala	Ile	Ile	Cys	Gln	Gln	Val	Leu	Ala	Arg	Ser	Ala	Asn	Glu	Gly	Tyr
					465				470				475		480

Asp Ala Leu Arg Asp Ala Tyr Thr Asp Met Ile Asp Ala Gly Ile Leu
485 490 495
Asp Pro Thr Lys Val Thr Arg Ser Ala Leu Glu Ser Ala Ala Ser Ile
500 505 510
Ala Gly Leu Leu Leu Thr Thr Glu Ala Leu Ile Ala Asp Ile Pro Glu
515 520 525
Glu Lys Ser Ser Ser Ala Pro Ala Met Pro Ser Ala Gly Met Asp Tyr
530 535 540